

ABSTRACT OF THE DISCLOSURE

A method of measuring oestrogen or progesterone receptor (ER or PR) comprises identifying in histopathological specimen image data pixel groups indicating cell nuclei, and deriving image hue and saturation. The image is thresholded using hue and saturation and preferentially stained cells identified. ER or PR status is determined from normalised average saturation and proportion of preferentially stained cells. A method of measuring C-erb-2 comprises correlating window functions with pixel sub-groups to identify cell boundaries, computing measures of cell boundary brightness and sharpness and brightness extent around cell boundaries, and comparing the measures with comparison images associated with different values of C-erb-2. A C-erb-2 value associated with a comparison image having similar brightness-related measures is assigned. A method of measuring vascularity comprises deriving image hue and saturation, producing a segmented image by hue and saturation thresholding and identifying contiguous pixels. Vascularity is determined from contiguous pixel area corresponding to vascularity expressed as a proportion of total image area.